IN THE CLAIMS

1. (Currently Amended) A method comprising:

identifying data for transmission;

determining how many time-slots are available for the transmission;

upon determining the number of the available time slots, identifying a plurality of data packet types that fit into the available time-slots and meet a minimum transfer length requirement; and

selecting, from the identified data packet types, a data packet type to transmit a portion of the data in accordance with characteristics of the transmission.

2. (Previously Presented) The method of claim 1, wherein selecting, from the identified data packet types, a data packet type to transmit a portion of the data comprises identifying a data packet type from the identified data packet types which can be used to transmit a largest portion of the data within the time-slots available.

3. (Previously Presented) The method of claim 1, wherein the data includes at least a minimum amount of data required by the data packet type.

4. (Previously Presented) The method of claim 1, further comprising identifying a data packet type from the identified data packet types to transmit all the data.

5. (Currently Amended) A method comprising:

identifying data for transmission;

determining how many time-slots are available for the transmission;

upon determining the number of the available time slots, identifying a plurality of data packets that fit into the available time-slots, meet a minimum transfer length requirement and are of a data packet type which is least prone to a transmission error; and

selecting, from the identified data packet types, a data packet type to transmit a portion of the data in accordance with characteristics of the transmission.

6. (Currently Amended) A method comprising:

identifying data for transmission;

determining how many time-slots are available for the transmission;

upon determining the number of the available time slots, identifying a plurality of data packets that fit into the available time-slots, meet a minimum transfer length requirement and can be transmitted in a transmitter logic low power mode; and

selecting, from the identified data packet types, a data packet type to transmit a portion of the data in accordance with characteristics of the transmission.

7. (Currently Amended) A computer-readable medium having stored thereon a set of instructions, which when executed by a processor, cause the processor to perform a method comprising:

identifying data for transmission;

determining how many time-slots are available for the transmission;

upon determining the number of the available time slots, identifying a plurality of data packet types that fit into the available time-slots and meet a minimum transfer length requirement; and

selecting, from identified data packet types, a data packet type to transmit a portion of the data in accordance with characteristics of the transmission.

8. (Previously Presented) The medium of claim 7, wherein selecting, from the identified data packet types, a data packet type to transmit a portion of the data comprises identifying a data packet type from the identified data packet types which can be used to transmit a largest portion of the data within the time-slots available.

9. (Previously Presented) The medium of claim 7, wherein the data includes at least a minimum amount of data required by the data packet type.

10. (Previously Presented) The medium of claim 7, further comprising identifying a data packet type from the identified data packet types to transmit all the data.

11. (Currently Amended) A computer-readable medium having stored thereon a set of instructions, which when executed by a processor, cause the processor to perform a method comprising:

    identifying data for transmission;

    determining how many time-slots are available for the transmission;

    upon determining the number of the available time slots, identifying a plurality of data packets that fit into the available time-slots, meet a minimum transfer length requirement and are of a data packet type which is least prone to a transmission error; and

    selecting, from the identified data packet types, a data packet type to transmit a portion of the data in accordance with characteristics of the transmission.

12. (Currently Amended) A computer-readable medium having stored thereon a set of instructions, which when executed by a processor, cause the processor to perform a method comprising:

    identifying data for transmission;

determining how many time-slots are available for the transmission;

upon determining the number of the available time slots, identifying a plurality of data packets that fit into the available time-slots, meet a minimum transfer length requirement and can be transmitted in a transmitter logic low power mode; and

selecting, from the identified data packet types, a data packet type to transmit a portion of the data in accordance with characteristics of the transmission.

13. (Currently Amended) A computing system comprising:

a first programmable module to identify data for transmission;

a second programmable module to determine how many time-slots are available for the transmission; and

a third programmable module to identify, upon determining the number of the available time slots, a plurality of data packet types that fit into the available time-slots and meet a minimum transfer length requirement, and to select, from the identified data packet types, a data packet type to transmit a portion of the data in accordance with characteristics of the transmission.

14. (Original) The computing system of claim 13, wherein the computing system includes a computer network router.

15. (Currently Amended) A computing system comprising:

a first programmable module to identify data for transmission;

a second programmable module to determine how many time-slots are available for the transmission; and

a third programmable module to identify, upon determining the number of the available time slots, a plurality of data packets that fit into the available time-slots, meet a

minimum transfer length requirement and are of a data packet type which is least prone to a transmission error, and to select, from the identified data packet types, a data packet type to transmit a portion of the data in accordance with characteristics of the transmission.

16. (Currently Amended) A computing system comprising:

a first programmable module to identify data for transmission;

a second programmable module to determine how many time-slots are available for the transmission; and

a third programmable module to identify, upon determining the number of the available time slots, a plurality of data packets that fit into the available time-slots, meet a minimum transfer length requirement and can be transmitted in a transmitter logic low power mode, and to select, from the identified data packet types, a data packet type to transmit a portion of the data in accordance with characteristics of the transmission.